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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/540,690	04/11/2006	Jiang Cheng	CN 020039	8970

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EXAMINER	
CASCA, FRED A	

ART UNIT	PAPER NUMBER
2617	

MAIL DATE	DELIVERY MODE
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/540,690	CHENG ET AL.	
	Examiner	Art Unit	
	FRED A. CASCA	2617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *31 December 2008*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-42* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-42* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *24 June 2005* is/are: a)☐ accepted or b)☒ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. This action is in response to applicant's amendment filed on December 31, 2008. Claims 1-42 are still pending in the present application. **This Action is made FINAL.**

Claim Rejections - 35 USC § 112

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claim 1-42 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Independent claims 1, 15 and 29 have been amended to contain new matter. The phrase "one or more of a plurality of time-dependent or time-specific parameters related to the detected information" added to independent claims 1, 15 and 29 has not been described in the specification.

Drawings

3. Figures 1 and 2 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected

drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. Claims 1, 7-9, 11-13, 14-15, 21-23, 25-27, 28, 29, 35-37 and 39-42 are rejected under 35 U.S.C. 102(e) are rejected under 35 U.S.C. 103(a) as being unpatentable over Mashinsky et al (US 2003/0050070 A1) in view of Liang et al (US 2004/0204105 A1).

Referring to claim 1, Mashinsky discloses a method for radio RF resources allocation in multi-standard wireless communication systems (Fig. 2 and Par. 37), comprising:

(a) detecting a plurality of received signals from a uplink (Par. 39, "spectrum management layer 22", "using requests"), wherein said signals contain information on the types of the different wireless communication schemes which are requested to access (Par 39, "request may have different characteristics associated with it"); and

(b) allocating the radio RF resources shared by said different communications schemes according to said detected information (Fig. 3-10, Par. 38-39, 41-42, "management layer 22 that is responsible for determining available network channels for a given transmission and for allocating channels to wireless devices").

Mashinksy does not specifically disclose one or more of a plurality of time-dependent or time-specific parameters related to the detected information as claimed by applicant.

Liang discloses one or more of a plurality of time-dependent or time-specific parameters related to the detected information (Paragraph [0004], "a specific physical channel, time slot, frequency band").

It would have been obvious to a person of ordinary skill in the art at the time of invention to modify the method of Mashinsky in the format claimed by incorporating the teachings of Liang, for the purpose of providing an efficient communication system.

Referring to claim 7, the combination of Mashinsky/Liang discloses the method of claim 1, and further discloses step b includes steps:

b1, judging whether there are RF resources available for the requests for accessing said different wireless communication schemes; and

b2, allocating said available RF resources to said requests, if there are RF resources available for said requests (Mashingsky, Fig. 3-5 and 9-10, Par. 38-39 and 41-42).

Referring to claim 8, the combination of Mashinsky/Liang discloses the method of claim 1, wherein step (b) further includes:

(b1) pre-allocating said RF resources to a specific communication scheme (Par. 37 and 39, "GPRS ... CDPD");

(b2) judging whether there are RF resources available for the requests for accessing the different wireless communication schemes, if the different wireless communication schemes are not the specific communication scheme (Par. 38- 39, "availability"); and

(b3) allocating said available RF resources to said requests, if there are RF resources available for said requests (par. 38-39, "determining available network channels ... allocating channels").

Referring to claim 9, the combination of Mashinsky/Liang discloses the method of claim 7, wherein step (b2) and (b3) are executed in following condition:

subscribers send said connection requests for accessing said different wireless communication schemes (Par. 39, "mode", "band").

Referring to claims 14 and 28, the combination of Mashinsky/Liang discloses the method of claims 1 and 15, wherein said wireless communication schemes include at least two of following: IS-95, CDMA, **GSM, TSM, GPRS**, TD-SCDMA, W-CDMA cdma 2000 and WLAN (Par. 37).

Claim 15 recites features analogous to the features of claim 1, thus, the combination of Mashinsky/Liang discloses all elements of claim 15 (please see the rejection of claim 1 above).

Claims 21-23 recite features analogous to the features of claims 7-9. Thus, they are rejected for the same reasons that claims 7-9 were rejected.

Claims 29, 35, 36, 37 and 42 recite features analogous to the features of claims 1, 7, 8, 9 and 14 respectively. Thus, the combination of Mashinsky/Liang discloses all elements of claims 29, 35, 36, 37 and 42.

Referring to claim 11, the combination of Mashinsky/Liang discloses the method of claim 7.

Mashinsky further discloses determining availability of network channels for a given transmission and for allocating channels to wireless devices.

It would have been obvious to one of the ordinary skill in the art at the time of invention to modify Mashinsky's availability scheme in the format claimed such that (i) judging whether there are RF carrier available for said requests, if there are no RF resources available for said requests for accessing said wireless communication schemes; and (ii) allocating said available RF carrier to said wireless communication schemes, if there are RF carriers available for said requests, and allocating the corresponding RF resources to said requests for the purpose of providing an efficient communication system.

Referring to claim 12, the combination of Mashinsky/Liang discloses the method of claim 11, and inherently disclose when the communications employing said wireless communication schemes ends, said RF carriers allocated to said requests are released (Mashinsky, Par. 37 and 38-41).

Referring to claim 13, the combination of Mashinsky/Liang discloses the method of claim 11, and inherently discloses if there are no RF carriers available for said requests, said requests are rejected Mashinsky, Par. 37 and 38-41).

Claims 25-27 recite features analogous to the features of claims 11-13. Thus, they are rejected for the same reasons that claims 11-13 are rejected.

Claims 39-41 recite features analogous to the features of claims 11-13. Thus, they are rejected for the same reasons that claims 11-13 are rejected.

6. Claims 2-6, 16-20 and 30-34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mashinsky et al (US 2003/0050070 A1) in view of Liang et al (US 2004/0204105 A1) and further in view of Strich et al (US 2002/0054580 A1).

Referring to claim 2, the combination of Mashinsky/Liang discloses the method of claim 1.

Mashinsky does not specifically disclose carrying out a statistic of the information on the requests for accessing each of said different wireless communication schemes in a set interval; and allocating said RF resources shared by said different wireless communication schemes according to said statistic of the set interval, as claimed.

Strich discloses communication resource allocation based on statistics (Par. 47).

It would have been obvious to one of the ordinary skill in the art at the time the invention was made to modify the method of Mashinsky in the format claimed by applicant by incorporating the teachings of Strich, for the purpose of providing an efficient communication system.

Referring to claim 3, the combination of Mashinsky/Liang/Strich discloses the method of claim 2, and further discloses information on the requests for accessing

each of said different wireless communication schemes includes the number of the requests for accessing each of said different wireless communication schemes (Mashinsky, Par. 38-40).

Referring to claim 4, the combination of Mashinsky/Liang/Strich discloses the method of claim 3, and further discloses the allocation of said RF resources is realized by calculating the ratio of the number of the requests for accessing each of said different wireless communication schemes (Mashinsky, Par. 39).

Referring to claim 5, the combination of Mashinsky/Liang/Strich discloses the method of claim 4, and further discloses said statistic is achieved by carrying out a statistic of said information on the requests for accessing each of said different wireless communication schemes within the set whole interval (Mashinsky, Par. 38-39, and Strich, Par. 47).

Referring to claim 6, the combination of Mashinsky/Liang/Strich discloses the method of 2, and further discloses statistic is achieved by carrying out a statistic of said information on the requests for accessing each of said different wireless communication schemes within rush hours of the set interval (Mashinsky, Par 39 and Strich, Par. 47).

Claims 16-20 recite features analogous to the features of claims 2-6. Thus, the combination of Mashinsky/Liang/Strich discloses all elements of claims 16-20.

Claims 30-34 recite features analogous to the features of claims 2-6. Thus, the combination of Mashinsky/Liang/Strich discloses all elements of claims 30-34.

7. Claims 10, 24 and 38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mashinsky et al (US 2003/0050070 A1) in view of Liang et al (US 2004/02044104) and further in view of well known prior art (MPEP 2144.03).

Referring to claim 10, combination of Mashinsky/Liang discloses the method of claim 7.

Mashinsky does not specifically disclose subscribers which carry out cell handover send handover requests for accessing different wireless communication schemes, in the format claimed by applicant.

The examiner takes official notice of the fact that handover request is well known in the art.

It would have been obvious to one of the ordinary skill in the art at the time of invention to modify the method of Mashinsky in the format claimed, for the purpose of providing an efficient communication system.

Claims 24 and 38 recite features analogous to the features of claim 10. Thus claims 24 and 38 are rejected for the same reasons/arguments that were used in the rejection of claim 10.

Response to Arguments

8. Applicant's arguments with respect to claims 1-42 have been considered but are moot in view of the new ground(s) of rejection.

9. Applicant's arguments Figures 1 and 2 are presented for illustrative purposes to depict a wireless mobile communications system having a plurality of cells and the allocation process of the present disclosure pertains to such an illustrative wireless mobile communications system. Thus, Figures 1 and 2 are not necessarily prior art, are not persuasive. Figures 1 and 2, as applicant admits above, illustrative purposes to depict a wireless mobile communications system. Further, figures 1 and 2 depict well-known cellular structure of a wireless mobile communications system. Thus, they are considered prior art. See MPEP § 608.02(g).

Conclusion

10. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Fred A. Casca whose telephone number is (571) 272-7918. The examiner can normally be reached on Monday through Friday from 9 to 5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paul Harper, can be reached at (571) 272-7605. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/VINCENT P. HARPER/

Supervisory Patent Examiner, Art Unit 2617